



TFW

Docket No.: 5000-0193PUS1
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Jordi TORMO I BLASCO et al.

Application No.: 10/590,326

Confirmation No.: 8108

Filed: August 23, 2006

Art Unit: N/A

For: 5,6-DIALKYL-7-AMINOTRIAZOLOPYRIMIDINES,
THEIR PREPARATION AND THEIR USE FOR
CONTROLLING HARMFUL FUNGI, AND
COMPOSITIONS COMPRISING THESE COMPOUNDS

Examiner: Not Yet Assigned

LETTER

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

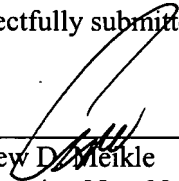
Sir:

Subsequent to the filing of the above-identified application on August 23, 2006, attached hereto is an English translation of the International Preliminary Examination Report (Form PCT/IPEA/409) that should be made of record in the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or to credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Dated: September 28, 2007

Respectfully submitted,

By 
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TRANSLATION

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 0000055416	FOR FURTHER ACTION	See Form PCT/IPEA/416
International application No. PCT/EP2005/002424	International filing date (day/month/year) 08.03.2005	Priority date (day/month/year) 10.03.2004
International Patent Classification (IPC) or national classification and IPC C07D487/04		
Applicant BASF Aktiengesellschaft		

1.	This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
2.	This REPORT consists of a total of _____ sheets, including this cover sheet.
3.	This report is also accompanied by ANNEXES, comprising: a. <input checked="" type="checkbox"/> (sent to the applicant and to the International Bureau) a total of <u>4</u> sheets, as follows: <input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions). <input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box. b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).
4.	This report contains indications relating to the following items: <input checked="" type="checkbox"/> Box No. I Basis of the report <input type="checkbox"/> Box No. II Priority <input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability <input checked="" type="checkbox"/> Box No. IV Lack of unity of invention <input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement <input type="checkbox"/> Box No. VI Certain documents cited <input type="checkbox"/> Box No. VII Certain defects in the international application <input type="checkbox"/> Box No. VIII Certain observations on the international application

Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

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Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
 - ☐ This report is based on translations from the original language into the following language _____ which is the language of a translation furnished for the purposes of:
 - ☐ international search (Rule 12.3 and 23.1(b))
 - ☐ publication of the international application (Rule 12.4)
 - ☐ international preliminary examination (Rule 55.2 and/or 55.3)
2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:
 - ☐ the international application as originally filed/furnished
 - ☒ the description:
 - pages 1-36 _____ as originally filed/furnished
 - pages* _____ received by this Authority on _____
 - pages* _____ received by this Authority on _____
 - ☒ the claims:
 - nos. _____ as originally filed/furnished
 - nos.* _____ as amended (together with any statement) under Article 19
 - nos.* 1-16 received by this Authority on 14.02.2006 with letter
 - nos.* _____ received by this Authority on of 13.02.2006
 - nos.* _____ received by this Authority on _____
 - ☐ the drawings:
 - sheets _____ as originally filed/furnished
 - sheets* _____ received by this Authority on _____
 - sheets* _____ received by this Authority on _____
 - ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing.
3. ☐ The amendments have resulted in the cancellation of:
 - ☐ the description, pages _____
 - ☐ the claims, nos. _____
 - ☐ the drawings, sheets/figs _____
 - ☐ the sequence listing (*specify*): _____
 - ☐ any table(s) related to sequence listing (*specify*): _____
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
 - ☐ the description, pages _____
 - ☐ the claims, nos. _____
 - ☐ the drawings, sheets/figs _____
 - ☐ the sequence listing (*specify*): _____
 - ☐ any table(s) related to sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

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Box No. IV

Lack of unity of invention

1. ☐ In response to the invitation to restrict or pay additional fees the applicant has:
- ☐ restricted the claims.
 - ☐ paid additional fees.
 - ☐ paid additional fees under protest.
 - ☐ neither restricted the claims nor paid additional fees.
2. ☒ This Authority found that the requirement of unity of invention is not complied with and chose, according to Rule 68.1, not to invite the applicant to restrict or pay additional fees.
3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 and 13.3 is:
- ☐ complied with.
 - ☐ not complied with for the following reasons:

See supplemental sheet

4. Consequently, this report has been established in respect of the following parts of the international application:

- ☒ all parts.
- ☐ the parts relating to claims Nos. _____

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Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement		
1. Statement			
Novelty (N)	Claims	1, 2, 4-16	YES
	Claims	3	NO
Inventive step (IS)	Claims	1, 2, 4-16	YES
	Claims	3	NO
Industrial applicability (IA)	Claims	1-16	YES
	Claims		NO
2. Citations and explanations (Rule 70.7)			
D1: EP-A-0 141 317 (BASF AKTIENGESELLSCHAFT) 15 May 1985 (1985-05-15)			
D2: EP-A-0 215 382 (BASF AKTIENGESELLSCHAFT) 25 March 1987 (1987-03-25)			
Novelty			
<p>The subject matter of dependent claim 3 overlaps with the subject matter of D1, the region of overlapping in the terminology of D1 being definable as follows: A = nitrogen, R¹ = alkyl substituted by halogen (F, Cl, Br), R² = alkyl, R³ = H (cf. page 1 lines 4, 5; page 1 formula I, page 1 lines 23, 26, 32, 33; page 1 lines 39-41; page 2 line 7 - page 4 line 9, page 10 line 34 - page 11 line 2).</p> <p>Therefore, at the present time, no novelty can be acknowledged for the subject matter of the dependent claim 3 and of the claims 4-16 which follow where they relate to claim 3.</p>			
Inventive step			
<p>For the unanticipated subject matter of claims 1 and 2 and of claims 4-16, where they do not relate to claim 3,</p>			

Box No. V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

D1 and D2 (cf. page 1 column 2 line 7 - column 1 line 34; page 1 formula I; page 2 column 2 lines 29-31) may equally be considered to be the closest prior art, since they solve the same problem and both approximate structurally to the present formula I from claim 1.

The distinguishing features between the novel subject matter of the claims and D1 and D2 may be considered to be the presence of

- compounds of the formula I in which $R^c = \text{CN}$ or $\text{C}_3\text{-C}_6\text{-cycloalkyl}$ (first invention) and
- compounds of the formula I in which $R^c = \text{NO}_2$ or OH (second invention).

In the absence of material proving a surprising technical effect which is connected to these features, the problem underlying the novel subject matter of the claims can merely be considered that of providing further fungicidal compounds and a process for their preparation.

The claimed solution to this very general problem consisted in the modification of the compounds known from D1 or D2 by introducing a further substituent R^c selected from

- CN or $\text{C}_3\text{-C}_6\text{-cycloalkyl}$ (first invention) or
- NO_2 or OH (second invention).

Since none of these solutions in the prior art, either taken alone or viewed in combination, has been foreshadowed in the prior art, the presence of an inventive step has to be acknowledged for the novel subject matter of the claims, even in the absence of a

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

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Box No. V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

surprising technical effect.

Industrial applicability

There is no doubt that the subject matter of the present claims 1-16 is industrially applicable.

Formal comments

Claims 1-16 are based completely on the original claims 1-16 and are therefore admissible under PCT Article 19(2) and 34(2) (b).

In dependent claim 3, the feature "R^c" is optional. The claim therefore also encompasses the possibility that R² bears no further substituents. The scope of protection of claim 3 therefore goes over and above the scope of protection of the main independent claim 1.

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of:

Box IV

The European patent application EP-A-0141317, filed by the applicant, discloses fungicidally active 5,6-dialkyl-triazolopyrimidines (see Box V, "Novelty" section). These compounds have the same structural feature in common as the compounds of the formula I of the present claim, specifically triazolopyrimidine which is substituted by alkyl in the 5- and 6-position.

The distinguishing feature between the present compounds of the formula I and the compounds from D1 is therefore the list of the specific substituents of the R² group, namely

- compounds of the formula I in which R^c=CN or C₃-C₆-cycloalkyl and
- compounds of the formula I in which R^c=NO₂ or OH.

However, with the presence of two different distinguishing features from D1 and with the absence of a common structural feature, the subject matter of the present claim 1 can no longer be considered to have unity under PCT Rule 13 and accordingly divides into two different inventions (lack of unity *a posteriori*), which are as follows:

- provision of fungicidal compounds of the formula I in which R^c=CN or C₃-C₆-cycloalkyl (first invention) and
- provision of fungicidal compounds of the formula I in which R^c=NO₂ or OH (second invention).